

## Immunization Unit Vaccine Storage Unit Guidelines

### PUBLIC VACCINE PROGRAM GUIDELINES

The guidelines below are specific to Wyoming Immunization Program providers enrolled in any public vaccine program including the VFC/WyVIP Program, Vaccines for Uninsured Adults (VUA) Program, and the Adult Hepatitis Vaccine (AHV) Program.

#### Acceptable Vaccine Storage Units include any of the following:

- Stand-alone freezer units for storing frozen vaccines.
  - Freezer units should have an automatic defroster; manual defrost units should only be used if the office has an acceptable alternate freezer to store frozen vaccines while defrosting the freezer.
- Stand-alone refrigerator units for storing refrigerated vaccines.
  - Refrigerator units should have automatic defrost (frost-free) and be free of any frost, ice, or water/coolant leaks.
  - Manual defrost (cyclic defrost) refrigerators with visible cooling plates/coiling in the internal back wall of the unit are not recommended.
- Combination/household style units are acceptable storing refrigerated vaccines; however it is highly recommended that these types of units only be used if the refrigerator and freezer sections of the unit have separate temperature controls (separate thermostats), and the freezer section of the unit is not being used.
- Pharmaceutical-grade combination units may be used for storing refrigerated and frozen vaccines.
  - *The unit must have documentation stating it is pharmaceutical or medical grade.*

#### UNACCEPTABLE Storage Units:

The following storage unit types must NOT be used for vaccine storage at any time or duration:

- **“Dorm-style”** units provide poor temperature control and often freeze vaccines that require refrigeration, resulting in immediate and irreversible damage.
  - “Dorm-style” units are defined as small refrigerator/freezer combination units with a single external door and an evaporator plate or cooling coil that forms a small freezer compartment within the unit or is pulled across the internal back wall of the unit.
- **“Convertible”** refrigerator-only units have an internal switch that converts an “all-refrigerator unit” to an “all-freezer” unit.

#### Vaccine Refrigerators Must:

- Maintain required vaccine storage temperatures (2°C to 8°C) year-round, preferably set at 4° to 5°C.
- Have sufficient usable space to store the largest number of doses expected at one time (including flu season), without overcrowding.
  - Bins and drawers must be removed from the unit or used to store temperature stability water bottles only.
  - Vaccines stored in combination refrigerator/freezer units should NEVER be stored in areas directly underneath air vents, in deli-crispers/vegetable bins, or in the doors.
- Be used only for vaccine storage unless there is adequate space for storage of other medications. However, these products must be stored below the vaccines on a different shelf.
- Be reliable, with a quiet compressor/motor, and not have a history of frequent needed repairs.
  - *Units over 10 years old often need to be replaced.*
- Have doors that seal tightly and close properly.
  - *The use of Velcro straps to secure storage unit doors is highly recommended.*
- Have a working calibrated digital data logger thermometer placed centrally in the unit.

### Vaccine Freezers Must:

- Maintain required vaccine storage temperatures (-15°C and below) year-round, preferably -20°C and below.
- Provide space to store vaccines, calibrated thermometer, and frozen cold packs comfortably.
- Have a working calibrated digital data logger thermometer placed centrally in the unit.
- Have doors that seal tightly and close properly.
- Be used only for vaccine storage.

### Vaccine Storage Unit Recommendations

Storage equipment recommendations vary based on the volume of vaccine in each facility. Providers who receive annually:

- **>10,000 doses of vaccine** (very high volume providers) are recommended to use “Pharmaceutical-grade”, “Biologic-grade”, or “Medical-grade” refrigerator-only (freezer-less) storage units and commercial stand-alone freezers.
- **2,000 – 10,000 doses of vaccine** (high volume providers) are recommended to use commercial refrigerator-only units and stand-alone freezers. Commercial units generally can be purchased locally through major chain retailers and do not require generator back-up.
- **<2,000 doses of vaccine** (medium or low volume providers) are strongly encouraged to use domestic or commercial grade refrigerator-only units and stand-alone freezers. The use of household refrigerator/freezer combination units is accepted only under the circumstances outlined below.

### Proper Placement of Your Vaccine Storage Units—Make Sure It Fits!

The number-one reason new refrigerators are returned is that they do not fit in the designated space! Make sure your new equipment will fit in your office. If you are replacing a refrigerator/freezer combination unit, you will now need space for two units: a new stand-alone refrigerator unit and a stand-alone freezer unit.

Pay close attention to the depth, width, and height measurements of your model before your purchase. You will need at least an extra 4 inches from the wall and ceiling to ensure good air circulation around the unit. This is essential for proper heat exchange and cooling functions on the unit. The unit’s location is also important. It must be placed away from direct sunlight and in a well-ventilated area.

**IMPORTANT:** Never stack a vaccine storage unit on top of another, unless the manufacturer or retailer has approved the configuration.

### Setting-Up Your New Unit

Before placing vaccines in your new unit, follow these simple steps to ensure success:

- Plug the vaccine storage units directly into the outlets. Never use extension cords, power strips, outlets connected to a wall switch, or any other device that can easily disconnect power to the unit.
- If the unit comes with vegetable bins or deli-crispers, remove them from the unit, or fill them with bottles of water marked “Do Not Drink.”
- Put proper “Do Not Unplug” signage directly on the unit, the unit’s power cord, and the power outlet to prevent the unit from being unplugged.
- Carefully label the areas where you will be storing each vaccine type (i.e. “Public” or “Private”).
- Place calibrated thermometers in the center of each unit.
- Set refrigerator temperatures to 4° to 5°C and freezer temperatures to -20°C or below.
- Prior to placing vaccines in the unit, record temperatures using a properly calibrated data logger for at least 10 days.
- **Providers must not place publicly supplied vaccines in the new unit until an Immunization Program staff member has reviewed the temperatures and has approved the unit for use.**

Please review the [CDC Vaccine Storage & Handling Toolkit](#) for additional information on setting up the new vaccine storage unit.